

ABSTRACT OF THE DISCLOSURE

A semiconductor device is improved in adhesion between: at
5 least a contact portion of its tantalum-base metal serving as a
barrier metal film; and, its copper buried wiring brought into
contact with the contact portion to prevent the copper buried wiring
from peeling off, and is therefore improved in reliability. Formed
in a trench designed for a buried wiring of an interlayer insulation
10 film are: a tantalum film having a film thickness of from 200 to
500 angstroms; and, a copper buried wiring having a film thickness
of from 1.1 to 1.55 μm . This copper buried wiring is formed by
stacking together a copper thin film having a film thickness of
from 0.08 to 0.12 μm and a copper thick film having a film thickness
15 of from 1.0 to 1.5 μm . Further formed between the tantalum film
and the copper buried wiring is an amorphous metal film having a
thickness of approximately angstroms. Still further formed between
the tantalum film and each of a surface protection film and an
interlayer insulation film is a tantalum oxide film having a film
20 thickness of approximately several angstroms.